

Attorney Docket No.: F7649(V)
Serial No.: 10/519,657
Filed: December 22, 2004
Confirmation No.: 9203

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

The claims have been amended to recite a particular molecular weight profile as supported by the specification at page 25.

In the Office Action, pending claims are rejected and as anticipated and/or is obvious over Davis et al. (U.S. patent No. 6,630,320). Davis was cited by the Examiner in the previous Office Action; the Examiner maintains the novelty rejection on the grounds that compositions of Davis would inherently anticipate applicants' claims.

Applicants' claims are directed to a method of treating obesity. Applicants respectfully submit that the method of treating obesity is not inherent in the treatment of hypertension disclosed by Davis. Initial burden of establishing prima facie basis to deny patentability rests upon examiner; examiner, if relying upon theory of inherency, must provide basis in fact and/or technical reasoning to reasonably support determination that allegedly inherent characteristic necessarily flows from teachings of applied prior art. Emphasis added. (*Ex parte Levy*, 17USPQ2d 1461). Davis teaches the use of whey protein hydrolysate in the treatment of the hypertension. Treatment or prevention of obesity or being overweight is different from having high blood pressure or the treatment of hypertension. The population suffering from hypertension is not necessarily suffering from obesity and vice versa. A person suffering from obesity but not from hypertension would not have known to exercise the treatment recited in applicants' amended claim 1. Therefore, it is not seen how applicants' method claim would have been inherently or necessarily achieved by Davis compositions. The method of treating obesity was not made available to the public by the Davis reference.

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Applicants agree with the Examiner that a well-established general principle is “that newly discovered property of prior art cannot support patent on that same prior art.” See *Abbott Laboratories v. Baxter Pharmaceutical Products, Inc.*, 80 USPQ2d 1860 (Fed. Cir., 2006).

In *In re Hack*, 114 USPQ 161 (CCPA, 1957) the court explained, however:

Grant of patent on composition or machine cannot be predicated on new use of composition or machine; although adaptation to new use may involve invention, patent on old product, based on its new use, has never been authorized by patent laws which provided for patents only on new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof; 1952 Act does not limit or modify this doctrine; while it recognizes that discovery or invention of new use of known process, machine, manufacture, composition of matter, or material may be patentable, such use can be nothing other than method or process; as matter of claim drafting, discoverer of new use must protect his discovery by means of process or method claims and not product claims. (Emphasis added).

In *Perricone v. Medicis Pharmaceutical Corp.*, 77 USPQ2d 1321, (Fed.Cir., 2005) the prior art reference taught a cosmetic composition for topical application and disclosed various ingredients in that composition. At page 1328 (section 3) of the opinion, the court explained that applicant’s (Perricone) method directed to treatment of skin sunburn may be patentable:

The issue is not, as the dissent and district court imply, whether Pereira’s lotion *if applied* to skin sunburn would inherently treat that damage, but whether Pereira discloses the application of its composition to skin sunburn. It does not. This court explained in *Catalina Marketing International, Inc. v. Cool Savings.com, Inc.* that a patent to an apparatus does not necessarily prevent a subsequent inventor from obtaining a patent on a new method of using the apparatus. 289F.3d 801, 809 [62 USPQ2d 1781] (Fed. Cir.2002). New uses of old products or processes are indeed patentable subject matter. See 35 U.S.C. § 101 (2000) (identifying as patentable “any new and useful improvements” of a process, machine, manufacture,

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etc.); *In re King*, 801 F.2d 1324, 1326 [231 USPQ 136] (Fed. Cir. 1986) (principles of inherency do not prohibit a process patent for a new use of an old structure). That principle governs in this case as well.

Applicants enclose a copy of the opinion for the Examiner's interest.

In addition, the molecular weight profile of the whey protein hydrolysate disclosed by Davis (see page 10, lines 26-32) is different from the molecular weight profile recited by amended claim 1.

The Examiner has further rejected claims 1, 3, 7-9, 12 and 19 under 35 U.S.C. 102(b) as being anticipated by Aoyama et al. The amended claims relate to a method of treating and/or preventing obesity or being overweight in/of a human subject. Furthermore, the claims recite that the whey protein hydrolysate has a specific molecular weight profile. Neither treatment of humans nor whey protein hydrolysates having the molecular weight profiles as defined in claim 1 are disclosed in Ayoma et al. Consequently, the subject matter of the amended claims is novel vis-à-vis Aoyama et al.

The Examiner has rejected claims 1, 3, 7-9, 12 and 19 under 35 U.S.C. 102(b) as being anticipated by Demling et al. Demling discloses the use of a composition in a diet for overweight police officer comprising an added protein in form of whey hydrolysate. Table 2 shows significant reduction in weight loss in the whey group. This article, however, fails to provide any disclosure that whey hydrolysates are able to induce cellular release of glucagon-like peptides and cholecystokinins. Furthermore, Demling does not disclose whey protein hydrolysates exhibiting the specific molecular weight profile recited in the amended claim 1. Consequently, the subject matter of new claim 1 is not anticipated by Demling et al.

The secondary references cited by the Examiner do not remedy the shortcomings of the primary references discussed above. With respect to obviousness, it is not seen how one of ordinary skill in the art who has not had the benefit of hindsight afforded by the present disclosure would have been led by the

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cited references to arrive at the claimed method using whey protein hydrolysates having the following molecular weight profile:

- 30 to 45% greater than 10,000 Dalton,
- 7 to 12% in the range 5000 to 10,000 Dalton,
- 15 to 25% in the range 2000 to 5,000 Dalton and
- 30-45% less than 2,000 Dalton.

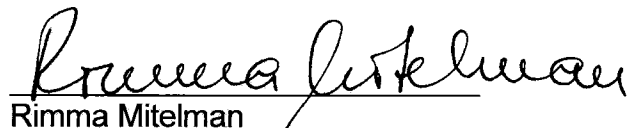
With respect to the double-patenting rejection, in light of the availability of Terminal Disclaimer practice, applicants agree to the filing of the Terminal Disclaimer upon an indication of the allowable subject matter.

Applicants respectfully request the Examiner's acknowledgement of documents submitted concurrently with the Sixth Supplemental Information Disclosure Statement and Supplemental Information Disclosure Statements submitted on April 21, 2008, May 13, 2008 and September 15, 2008.

In light of the above amendments and remarks, it is respectfully requested that the application be allowed to issue.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



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Perricone v. Medicis Pharmaceutical Corp.

**U.S. Court of Appeals
Federal Circuit**

Nos. 05-1022, -1023

Decided December 20, 2005

PATENTS

[1] Practice and procedure in Patent and Trademark Office — Prosecution — Disclaimer (§ 110.0925)

Patentability/Validity — Anticipation — Double patenting (§ 115.0708)

Federal district court did not err in concluding that claims of patent for method of treating damaged skin are invalid, for obviousness-type double patenting, over prior patent for method of treating sunburned skin, since court's analysis specifically addresses differences between patents' respective claims, since sunburn is species of skin damage, and court did not err in concluding that earlier "species" claims render later "genus" claims invalid, since court did not misconstrue genus-species relationship in concluding that there is no patentable distinction between language of claim in later patent and claim of earlier patent, and since court correctly rejected suggestion that procedures in U.S. Patent and Trademark Office governing restriction practice militate against finding of double patenting; although there is no evidence that patentee filed terminal disclaimer, Patent Act and PTO rules support filing of disclaimer even after issuance of second patent, and terminal disclaimer therefore can supplant finding of invalidity for double patenting.

[2] Patentability/Validity — Anticipation — Identity of elements (§ 115.0704)

1. Prior art claims directed to cosmetic compositions for topical application anticipate recitation of ascorbyl palmitate as skin benefit ingredient in asserted claims, even though prior patent discloses ascorbyl palmitate as one of 14 skin benefit ingredients, since disclosure of single ingredient can anticipate even if it appears without special emphasis in longer list, and since prior patent specifically discloses ascorbyl palmitate, and therefore does not disclose broad genus without refer-

ence to potentially anticipating species; prior patent's disclosed range of concentration of skin benefit ingredient likewise anticipates patent's claimed "effective amount" ranges, even though ranges disclosed in prior patent and asserted claims do not correspond exactly, since range in prior patent entirely encompasses, and does not significantly deviate from, ranges in patent in suit.

[3] Patentability/Validity — Subject matter (§ 115.05)

Patentability/Validity — Anticipation — Prior art (§ 115.0703)

Patentability/Validity — Anticipation — Identity of elements (§ 115.0704)

Claims for method of treating sunburned skin are not inherently anticipated by prior art patent directed to cosmetic compositions for topical application, even though such compositions include various ingredients in concentrations claimed in patent in suit, since new uses for old products or processes are patentable subject matter, and since claims at issue recite new use for composition disclosed in prior art patent, in that disclosed use of prior art lotion, namely, topical application, does not suggest application of lotion to skin sunburn; skin sunburn is not analogous to skin surfaces generally, and there is important distinction between topical application to skin for purpose of avoiding sunburn, and much narrower topical application to skin sunburn.

[4] Patentability/Validity — Anticipation — Prior art (§ 115.0703)

Patentability/Validity — Anticipation — Identity of elements (§ 115.0704)

Claims of patent for method of treating damaged skin are inherently anticipated by prior art patent directed to cosmetic compositions for topical application, since claims at issue recite application of composition to "affected skin areas" or "affected tissue areas," which are further identified as areas of "aged" or "aging" skin, since all skin ages, and since prior patent's "topical application" of same composition therefore encompasses "application" steps of claims at issue.

REMEDIES

[5] Monetary — Attorneys' fees; costs —
Patents — Exceptional case
(§ 510.0905.03)

Denial of infringement defendant's motion for award of attorneys' fees is affirmed, despite defendant's arguments regarding plaintiff's conduct during settlement negotiations and litigation, since there is nothing in record to show that federal district court committed clear error in determining whether case is "exceptional" within meaning of 35 U.S.C. § 285; failure to award attorneys' fees would not constitute abuse of discretion even if case were to be deemed "exceptional," in view of district court's familiarity with various relevant details of plaintiff's conduct.

Particular patents — Chemical — Skin
treatments

5,409,693, Perricone, method for treating and preventing sunburn and sunburn damage to the skin, summary judgment of invalidity and noninfringement affirmed in part, reversed in part, and vacated in part.

5,574,063, Perricone, method and compositions for topical application of ascorbic acid fatty acid esters for treatment and/or prevention of skin damage, summary judgment of invalidity affirmed.

Appeal from the U.S. District Court for the District of Connecticut, Droney, J.

Action by Nicholas Perricone against Medicis Pharmaceutical Corp. for patent infringement. Plaintiff appeals from summary judgment finding one patent in suit invalid and not infringed, and second patent invalid, and defendant cross-appeals from denial of its motion for award of attorneys' fees. Affirmed in part, reversed in part, vacated in part, and remanded; Bryson, J., concurring in part and dissenting in part in separate opinion.

Raphael V. Lupo, Charles R. Work, Mark G. Davis, David A. Spenard, Mary C. Chapin, and Evan Parke, of McDermott Will & Emery, Washington, D.C., for plaintiff-appellant.

William J. McNichol Jr., Tracy Z. Frisch, Maryellen Feehery, Heather A. Ritch, and Charles L. Becker, of Reed Smith, Philadelphia, Pa., for defendant/cross-appellant.

Before Rader, Bryson, and Linn, circuit judges.

Rader, J.

On summary judgment, the United States District Court for the District of Connecticut, No. 3:99-CV-01820, determined that all of the asserted claims of Dr. Nicholas V. Perricone's U.S. Patent Nos. 5,409,693 (the '693 patent) and 5,574,063 (the '063 patent) are invalid and, as to the '693 patent, not infringed. *Perricone v. Medicis Pharm. Corp.*, 267 F.Supp.2d 229 (D. Conn. 2003). Dr. Perricone seeks reversal of those judgments while Medicis Pharmaceutical Corporation cross-appeals the district court's refusal to declare the case exceptional under 35 U.S.C. § 285 and to award Medicis its attorney fees. Because the district court erred in its anticipation analysis with respect to claims 1-4 and 7 of the '693 patent, this court reverses and remands the judgments on those claims of the '693 patent. This court otherwise affirms the trial court's decisions of anticipation based on inherency for the remaining claims of the '693 and '063 patents and its double-patenting analysis with respect to claims 9, 11-13, 16, 18, and 19 of the '063 patent. Finally, this court affirms the district court's denial of Medicis' motion under § 285.

I.

Dr. Perricone's patents claim methods of treating or preventing sunburns (the '693 patent) and methods of treating skin damage or disorders (the '063 patent). The '693 patent issued in 1995, tracing priority back to a filing in 1989. The '063 patent issued in 1996, with priority back to the application that resulted in the '693 patent. The information added in that continuation-in-part application does not affect this case. Thus, both patents disclose essentially the same subject matter: treatment or prevention of various forms of skin damage through the topical application of ascorbic acid (Vitamin C) in a fat soluble form. *See* '693 patent, col. 2, ll. 26-34; '063 patent, col. 2, ll. 30-36. Specifically, the patents disclose the topical application of ascorbyl fatty acid ester (e.g., ascorbyl palmitate, ascorbyl laurate, ascorbyl myristate, ascorbyl stearate) with a dermatologically acceptable carrier. *See* '693 patent, col. 2, ll. 26-34; '063 patent, col. 2, ll. 30-36. Because the carrier, as well as the ascorbyl fatty acid ester, is fat soluble, it can

"effectively penetrate skin layers and deliver the active ascorbyl fatty acid ester to the lipid-rich layers of the skin." '693 patent, col. 4, ll. 4-6; '063 patent, col. 4, ll. 10-12. Upon reaching the lipid-rich layers of skin, the ascorbyl fatty acid ester produces a number of beneficial effects ranging from the acceleration of collagen synthesis to the scavenging of oxygen-containing radicals caused by exposure to damaging ultraviolet radiation. See '693 patent, col. 5, ll. 30-35, col. 6, ll. 35-50; '063 patent, col. 6, ll. 3-15, col. 7, ll. 30-45.

In 1999, Dr. Perricone sued Medicis, alleging that Medicis infringed both the '693 and '063 patents with its LUSTRA® line of prescription skin depigmenters. *Perricone*, 267 F.Supp.2d at 232-33. LUSTRA® is a cream that, with hydroquinone as its active ingredient, reduces the production of melanin, i.e., the pigment in skin. LUSTRA® also includes, *inter alia*, ascorbyl palmitate. Before the district court, Dr. Perricone filed motions for summary judgment of validity and infringement, and Medicis filed a motion for partial summary judgment of invalidity of claims 9, 11-13, 16, 18, and 19 of the '063 patent on the basis of double patenting, and of claims 1-19 of the '063 patent and claims 1-4, 7-9, and 13 of the '693 patent on the basis of anticipation. *Id.* at 233. Medicis also filed motions for partial summary judgment of non-infringement, premised on the invalidity of Dr. Perricone's asserted claims, and for attorney fees under 35 U.S.C. § 285. Aside from the rejected attorney fees request, the district court granted Medicis' motions and denied Dr. Perricone's. *Id.* at 249.

The district court's opinion and the parties' briefs before this court do not disclose the disposition of each claim of the '693 and '063 patents. The district court's opinion appears to invalidate all of the asserted claims of both patents, yet grants summary judgment of non-infringement only for the '693 patent. See *id.* Dr. Perricone's opening brief suggests that the district court's non-infringement ruling applies to the asserted claims of both patents. Dr. Perricone's opening brief at 1. Nevertheless, this court need not determine the correct status of each claim. Rather, this court confines its rulings to reversal of a clearly identifiable subset of the '693 claims and trusts the parties to resolve any uncertainty on remand.

II.

This court reviews a district court's grant of summary judgment without deference and a denial of summary judgment for an abuse of discretion, *Electromotive Div. of Gen. Motors Corp. v. Transp. Sys. Div. of Gen. Elec. Co.*, 417 F.3d 1203, 1209 [75 USPQ2d 1650] (Fed. Cir. 2005), drawing all reasonable inferences in favor of the nonmovant. This court gives due weight to a patent's presumed validity under 35 U.S.C. § 282 (2000), requiring an accused infringer to prove invalidity by clear and convincing evidence. *Geneva Pharm., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1377 [68 USPQ2d 1865] (Fed. Cir. 2003). This court reviews double patenting without deference. *Georgia-Pacific Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1326 [52 USPQ2d 1590] (Fed. Cir. 1999).

Double Patenting

The double patenting doctrine generally prevents a patentee from receiving two patents for the same invention. Thus, this doctrine polices the proper application of the patent term for each invention. The proscription against double patenting takes two forms: statutory and non-statutory. Statutory, or "same invention," double patenting is based on the language in § 101 of the Patent Act mandating "a patent" for any new and useful invention. 35 U.S.C. § 101 (2000); *In re Goodman*, 11 F.3d 1046, 1052 [29 USPQ2d 2010] (Fed. Cir. 1993) ("If the claimed inventions are identical in scope, the proper rejection is under 35 U.S.C. § 101 because an inventor is entitled to a single patent for an invention.") (citations omitted). Non-statutory, or "obviousness-type," double patenting is a judicially created doctrine adopted to prevent claims in separate applications or patents that do not recite the "same" invention, but nonetheless claim inventions so alike that granting both exclusive rights would effectively extend the life of patent protection. *Gerber Garment Tech., Inc. v. Lectra Sys., Inc.*, 916 F.2d 683, 686 [16 USPQ2d 1436] (Fed. Cir. 1990) (citing *In re Thorington*, 418 F.2d 528, 534 [163 USPQ 644] (CCPA 1969)). This case involves double patenting in this latter category.

Claim 1 of the '693 patent recites:

1. A method for treating skin sunburn comprising topically applying to the skin sunburn a fatty acid ester of ascorbic acid effective to solubilize in the lipid-rich lay-

ers of the skin an amount effective to scavenge therefrom free radicals present as a result of transfer of energy to the skin from the ultraviolet radiation which produced said sunburn.

'693 patent, col. 7. Meanwhile, claim 9 of the '063 patent recites:

9. A method for the treatment of skin damaged or aged by oxygen-containing free radicals or oxidative generation of biologically active metabolites which comprises topically applying to affected skin areas a composition containing an effective amount of an ascorbyl fatty acid ester in a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin.

'063 patent, cols. 8-9. The district court found claim 9 of the '063 patent invalid under the non-statutory double patenting doctrine in view of claim 1 of the '693 patent. In reaching that conclusion, the district court first identified differences between the two claims:

(1) claim 9 of the '063 patent teaches a method for treatment of certain skin disorders, while claim 1 of the '693 patent teaches a method for treatment of sunburn; (2) claim 9 of the '063 patent recites the use of "an effective amount of an ascorbyl fatty acid ester . . .," while claim 1 of the '693 patent teaches applying an ascorbyl fatty acid ester "effective to solubilize in the lipid-rich layers of the skin an amount effective to scavenge free radicals present as a result of the transfer of energy to the skin from the ultraviolet radiation which produced [the] sunburn"; and (3) claim 9 of the '063 patent recites the use of "a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin," while the '693 patent does not explicitly recite the use of a carrier.

Perricone, 267 F.Supp.2d at 240. The district court analyzed those distinctions. In the first place, the district court noted that "sunburn is a species of the genus of skin disorders" covered by the '063 patent. *Id.* Next, consulting the specifications of both patents, the district court concluded that the claimed effective amount in the '063 patent falls within the ranges of effective amounts in the '693 patent. Finally, the district court construed the "effective to solubilize" language in claim 1 of the

'693 patent to mean the same thing as the language in claim 9 of the '063 patent requiring "a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin." Accordingly, the district court found claim 9 of the '063 patent invalid for obviousness-type double patenting in view of claim 1 of the '693 patent.

Claims 11-13 of the '063 patent all depend from independent claim 9. Thus, the district court's analysis of claim 9 applies equally to claims 11-13. Claim 11 includes an additional limitation specifying a particular range of concentration of the ester. Because that range substantially overlaps the range in claim 5 of the '693 patent (dependent on claim 1 of the '693 patent), the district court determined that claim 11 of the '063 patent is also obvious in view of claim 5 of the '693 patent. *Id.* at 242. For claims 12 and 13 of the '063 patent, the district court determined that those claims added the same limitations to independent claim 9 as claims 3 and 4 added to claim 1 of the '693 patent. Thus, the district court determined that dependent claims 11-13 fall with claim 9 of the '063 patent for the above reasons. *Id.* at 241.

Independent claim 16 of the '063 patent includes limitations analogous to those in independent claim 9. Accordingly, the district court applied the same reasoning for its double patenting determination of claim 16: *Id.* at 241-42. The district court paid special attention to the additional recitation in claim 16 of specific "tocotrienols," but determined that those tocotrienols are not patentably distinct from the Vitamin E of claim 7 of the '693 patent. Finally, the district court determined that claims 18 and 19 of the '063 patent, which both depend from claim 16 of that patent, are not patentably distinct from claims 4 and 7.

[1] This court first examines the contention that the claims of the '063 patent contain "material differences" from those in the '693 patent. This "material differences" argument does not show that the district court erred in its double patenting analysis. Rather, the district court's analysis specifically addresses differences between the claims of the '693 and '063 patents. For instance, the district court discussed the difference between the recitation in the '063 patent's claim 9 of "a dermatologically acceptable fat-penetrating carrier" and

ers of the skin an amount effective to scavenge therefrom free radicals present as a result of transfer of energy to the skin from the ultraviolet radiation which produced said sunburn.

'693 patent, col. 7. Meanwhile, claim 9 of the '063 patent recites:

9. A method for the treatment of skin damaged or aged by oxygen-containing free radicals or oxidative generation of biologically active metabolites which comprises topically applying to affected skin areas a composition containing an effective amount of an ascorbyl fatty acid ester in a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin.

'063 patent, cols. 8-9. The district court found claim 9 of the '063 patent invalid under the non-statutory double patenting doctrine in view of claim 1 of the '693 patent. In reaching that conclusion, the district court first identified differences between the two claims:

- (1) claim 9 of the '063 patent teaches a method for treatment of certain skin disorders, while claim 1 of the '693 patent teaches a method for treatment of sunburn;
- (2) claim 9 of the '063 patent recites the use of "an effective amount of an ascorbyl fatty acid ester . . .," while claim 1 of the '693 patent teaches applying an ascorbyl fatty acid ester "effective to solubilize in the lipid-rich layers of the skin an amount effective to scavenge free radicals present as a result of the transfer of energy to the skin from the ultraviolet radiation which produced [the] sunburn"; and (3) claim 9 of the '063 patent recites the use of "a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin," while the '693 patent does not explicitly recite the use of a carrier.

Perricone, 267 F.Supp.2d at 240. The district court analyzed those distinctions. In the first place, the district court noted that "sunburn is a species of the genus of skin disorders" covered by the '063 patent. *Id.* Next, consulting the specifications of both patents, the district court concluded that the claimed effective amount in the '063 patent falls within the ranges of effective amounts in the '693 patent. Finally, the district court construed the "effective to solubilize" language in claim 1 of the

'693 patent to mean the same thing as the language in claim 9 of the '063 patent requiring "a dermatologically acceptable, fat-penetrating carrier such that the ester is percutaneously delivered to lipid-rich layers of the skin." Accordingly, the district court found claim 9 of the '063 patent invalid for obviousness-type double patenting in view of claim 1 of the '693 patent.

Claims 11-13 of the '063 patent all depend from independent claim 9. Thus, the district court's analysis of claim 9 applies equally to claims 11-13. Claim 11 includes an additional limitation specifying a particular range of concentration of the ester. Because that range substantially overlaps the range in claim 5 of the '693 patent (dependent on claim 1 of the '693 patent), the district court determined that claim 11 of the '063 patent is also obvious in view of claim 5 of the '693 patent. *Id.* at 242. For claims 12 and 13 of the '063 patent, the district court determined that those claims added the same limitations to independent claim 9 as claims 3 and 4 added to claim 1 of the '693 patent. Thus, the district court determined that dependent claims 11-13 fall with claim 9 of the '063 patent for the above reasons. *Id.* at 241.

Independent claim 16 of the '063 patent includes limitations analogous to those in independent claim 9. Accordingly, the district court applied the same reasoning for its double patenting determination of claim 16. *Id.* at 241-42. The district court paid special attention to the additional recitation in claim 16 of specific "tocotrienols," but determined that those tocotrienols are not patentably distinct from the Vitamin E of claim 7 of the '693 patent. Finally, the district court determined that claims 18 and 19 of the '063 patent, which both depend from claim 16 of that patent, are not patentably distinct from claims 4 and 7.

[1] This court first examines the contention that the claims of the '063 patent contain "material differences" from those in the '693 patent. This "material differences" argument does not show that the district court erred in its double patenting analysis. Rather, the district court's analysis specifically addresses differences between the claims of the '693 and '063 patents. For instance, the district court discussed the difference between the recitation in the '063 patent's claim 9 of "a dermatologically acceptable fat-penetrating carrier" and

claim 1's recitation of no carrier at all. Thus, the district court cogently reasoned that, based on the specification, the "effective to solubilize" language in claim 1 of the '693 patent means the same thing as the "carrier" language in claim 9. Thus, the difference disappears.

Likewise, the district court properly resolved the apparent difference between treatment of various types of skin damage in claims 9 and 16 of the '063 patent and treatment of sunburn in claim 1. Sunburn is a species of skin damage. As such, this court perceives no error in the district court's determination that the earlier species renders the later genus claims invalid under non-statutory double patenting. See *Eli Lilly & Co. v. Barr Labs., Inc.* 251 F.3d 955, 971 [58 USPQ2d 1865] (Fed. Cir. 2001) ("[This court's] case law firmly establishes that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim.") (citations omitted).

Finally, the district court did not misconstrue the genus-species relationship between claim 16 of the '063 patent and claim 7 of the '693 patent. The district court interpreted the language of claim 16 reciting various tocotrienols, and concluded that it "refers to certain forms of tocopherols, or Vitamin E." *Perricone*, 267 F.Supp.2d at 238. Thus, the district court did not improperly conclude that a species was obvious in light of an earlier claim to a genus but correctly concluded that there was no patentable distinction between the language of claim 16 of the '063 patent and claim 7 of the '693 patent. This court finds no error in that analysis.

The district court also considered and correctly rejected the suggestion that procedures of the United States Patent and Trademark Office (PTO) militate against double patenting. Specifically, if Dr. Perricone had presented all the claims of the '693 and '063 patents to the PTO in a single application, the PTO might have made a restriction requirement. In other words, the PTO might have separated the claimed subject matter into different classifications and different inventions. If the PTO had entered a restriction requirement under that hypothetical situation, 35 U.S.C. § 121 would have barred a double patenting rejection. Yes, and if the court had a brother, he might like buttermilk. In other words, this tortured hypothetical does not correspond to the

record in this case. The various claims were not filed together nor restricted by the PTO. Thus, in simple terms, 35 U.S.C. § 121 does not rescue Dr. Perricone's voluntarily filed continuation-in-part application.

Finally, and contrary to the suggestion by the district court, the Patent Act and PTO rules support the filing of a terminal disclaimer even after issuance of the second patent. See 35 U.S.C. § 253 (2000) ("[A]ny patentee . . . may disclaim or dedicate to the public the entire term, or any terminal part of the term, of the patent granted . . ."); 37 CFR § 1.321(a) (incorporating the language of § 253). The district court's focus on *In re Goodman*, 11 F.3d 1046, 1052 [29 USPQ2d 2010] (Fed. Cir. 1993) (explaining that a terminal disclaimer can overcome a double patenting "rejection") seems to have led to its conclusion that a terminal disclaimer cannot be filed for an issued patent to overcome invalidity based on double patenting. The commentary from *In re Goodman* arose in the context of ex parte prosecution, a setting not applicable to this case. An applicant must always overcome every rejection to gain issuance of a patent. Accordingly, the pre-issuance timing requirement of a terminal disclaimer to overcome a double patenting rejection does not dictate a prohibition on post-issuance terminal disclaimers. A terminal disclaimer can indeed supplant a finding of invalidity for double patenting. See *Applied Materials, Inc. v. Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1577 [40 USPQ2d 1481] (Fed. Cir. 1996) ("For obviousness-type double patenting, [the improper extension of the statutory term] problem can sometimes be avoided for co-owned patents . . . through the use of a terminal disclaimer."). This record, however, does not include any evidence of a disclaimer even though the district court invalidated the claims over two years ago. Thus, while Dr. Perricone might still file a terminal disclaimer to overcome prospectively the double patenting basis for invalidity, this court makes no determination about the retrospective effect of such a terminal disclaimer.

Anticipation

A single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 [24 USPQ2d 1321] (Fed. Cir. 1992). Thus, a prior art reference without express ref-

erence to a claim limitation may nonetheless anticipate by inherency. See *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 [64 USPQ2d 1202] (Fed. Cir. 2002). "Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claims limitations, it anticipates." *Id.* (quoting *MEHL/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1365 [52 USPQ2d 1303] (Fed. Cir. 1999)). Moreover, "[i]nherency is not necessarily coterminous with knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art." *Id.*; see also *Schering Corp. v. Geneva Pharms.*, 339 F.3d 1373, 1377 [67 USPQ2d 1664] (Fed. Cir. 2003) (rejecting the contention that inherent anticipation requires recognition in the prior art) (citing *In re Cruciferous Sprout Litig.*, 301 F.3d at 1351; *MEHL/Biophile*, 192 F.3d at 1366).

The district court determined that U.S. Patent No. 4,981,845 (Pereira) anticipates claims 1-4, 7-9, and 13 of the '693 patent, and claims 1-19 of the '063 patent. *Perricone*, 267 F.Supp. at 243. Pereira teaches a cosmetic composition for topical application and discloses various ingredients in that composition, including skin benefit ingredients, emollients, emulsifiers, and thickeners. See Pereira, cols. 1-2. In addition to listing examples, Pereira discloses eight distinct example compositions with specific concentrations of ingredients. *Id.* at cols. 8-12. Pereira identifies the disclosed compositions only briefly, identifying them as "suitable for topical application to the skin or hair." Pereira, col. 1, ll. 6-8. The district court concluded that Pereira's disclosed use anticipates Dr. Perricone's claims because Pereira's disclosed compositions include all the various ingredients in the concentrations claimed by Dr. Perricone. Thus, according to the district court, the topical application of Pereira's compositions would necessarily yield Dr. Perricone's claimed skin benefits. On appeal, Dr. Perricone argues that: (1) Pereira's disclosed skin benefit ingredients include ascorbyl palmitate among many others, and so Pereira's disclosure does not anticipate the specific claimed use of ascorbyl palmitate; (2) Pereira's disclosed range of concentration of its skin benefit ingredient only partially overlaps with Dr. Perricone's claimed range; and (3) Pereira does not disclose any benefit directed to skin sunburn, or any of the other spe-

cific skin disorders, as claimed by Dr. Perricone.

[2] With respect to its skin benefit ingredient, Pereira discloses "from 0.01 to 20% by weight of a skin benefit ingredient chosen from: ... Ascorbyl palmitate [and] Tocopherol [i.e., Vitamin E]" Pereira, col. 1, ll. 55-68. In addition to those two identified ingredients, Pereira lists an additional twelve ingredients. See *id.* In total, Pereira teaches a total of fourteen skin benefit ingredients. This court rejects the notion that one of these ingredients cannot anticipate because it appears without special emphasis in a longer list. To the contrary, the disclosure is prior art to the extent of its enabling disclosure. See *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1324 n.6 [67 USPQ2d 1825] (Fed. Cir. 2003) ("The anticipation analysis asks solely whether the prior art reference discloses and enables the claimed invention, and not how the prior art characterizes that disclosure or whether alternatives are also disclosed.") (citing *Celeritas Techs. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 [47 USPQ2d 1516] (Fed. Cir. 1998)).

In re Baird, 16 F.3d 380, 383 [29 USPQ2d 1550] (Fed. Cir. 1994), is not inconsistent with this anticipation analysis. In the first place, *In re Baird* involved obviousness, not anticipation. *Baird* observes that "disclosure of millions of compounds does not render obvious a claim to three compounds." 16 F.3d at 383 (emphasis added). *Baird's* reasoning, relevant to obviousness, does not apply to Pereira's disclosure of a handful of different compositions, the use of one of which anticipates Dr. Perricone's claims.

While other opinions state that disclosure of a broad genus does not necessarily specifically disclose a species within that genus, see, e.g., *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1262 [9 USPQ2d 1962] (Fed. Cir. 1989), this axiomatic proposition also does not rescue Dr. Perricone's claims. In this case, the prior art does not merely disclose a genus of skin benefit ingredients without disclosing the particular claimed ingredient. Rather Pereira specifically discloses ascorbyl palmitate. That specific disclosure, even in a list, makes this case different from cases involving disclosure of a broad genus without reference to the potentially anticipating species. Thus, these cases do not al-

ter the district court's correct anticipation reasoning.

Pereira's disclosed range of concentration also does not exactly correspond to Dr. Perricone's claimed range. Pereira's disclosure nonetheless discloses and anticipates Dr. Perricone's particular claimed "effective amount" ranges. Dr. Perricone's claims recite a number of different ranges associated with the fatty acid ester. Those claimed ranges vary in breadth from an "effective" amount in claim 1 to particular specific ranges in other claims (e.g., "up to 10% by weight," '063 patent, claim 2; "from about 0.025% to about 5% by weight," '063 patent, claim 3; "from about 0.025% to about 10% by weight," '063 patent, claim 22). Pereira discloses a range of concentration "from 0.01 to 20% by weight." Pereira, col. 1, ll. 55-68. As the district court correctly noted, Pereira's range entirely encompasses, and does not significantly deviate from, Dr. Perricone's claimed ranges. Thus, this court sustains the district court's reading of Pereira's effective amount disclosure. See *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1346 [51 USPQ2d 1943] (Fed. Cir. 1999) ("[W]hen a patent claims a chemical composition in terms of ranges of elements, any single prior art reference that falls within each of the ranges anticipates the claim.") (citing *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 781 [227 USPQ 773] (Fed. Cir. 1985)).

With respect to the particular claimed skin benefits, the district court reasoned that "Pereira will inherently function in [the claimed beneficial manner] when topically applied to the skin." *Perricone*, 267 F.Supp.2d at 248. Thus, the district court ultimately based its anticipation analysis on inherency. "In general, a limitation or the entire invention is inherent and in the public domain if it is the 'natural result flowing from' the explicit disclosure of the prior art." *Schering*, 339 F.3d at 1379 (citing *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 970 [58 USPQ2d 1865] (Fed. Cir. 2001); *In re Kratz*, 562 F.2d 1169, 1174 (CCPA 1979)). In some cases, the inherent property corresponds to a claimed new benefit or characteristic of an invention otherwise in the prior art. In those cases, the new realization alone does not render the old invention patentable. See *Atlas Powder*, 190 F.3d at 1347 ("[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for

the prior art's function, does not render the old composition patentably new to the discoverer."); *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1376 [58 USPQ2d 1508] (Fed. Cir. 2001) (explaining that newly discovered results of known processes are not patentable because those results are inherent in the known processes). Thus, when considering a prior art method, the anticipation doctrine examines the natural and inherent results in that method without regard to the full recognition of those benefits or characteristics within the art field at the time of the prior art disclosure.

Dr. Perricone's five asserted independent claims recite:

[Claim 1, '693 patent] A method for treating skin sunburn comprising topically applying to the skin sunburn a fatty acid ester of ascorbic acid

[Claim 8, '693 patent] A method for preventing sunburn damage to exposed skin surfaces, comprising topically applying to said skin surfaces

[Claim 1, '063 patent] A method for the treatment of skin disorders which arise because of depleted or inhibited collagen synthesis which comprises topically applying to affected skin areas

[Claim 9, '063 patent] A method for the treatment of skin damaged or aged by . . . which comprises topically applying to affected skin areas a composition containing

[Claim 16, '063 patent] A method for the treatment of damaged or aging skin and epithelial tissue disorders . . . said treatment comprising topically applying to affected tissue areas the combination of

Thus, Dr. Perricone's independent claims recite particular skin benefits together with methods of achieving those benefits (i.e., topically applying a particular compound).^{*} If Pereira discloses the very same methods, then the particular benefits must naturally flow

^{*} This court notes that while the various claimed beneficial uses appear to be recited in the preambles of Dr. Perricone's claims, the district court construed those claims as being limited by their preambles, see *Perricone*, 267 F.Supp.2d at 237 (determining the scope of various preamble terms), and neither party seems to have challenged that construction. This court agrees that the district court's construction was correct.

from those methods even if not recognized as benefits at the time of Pereira's disclosure. Thus, Pereira anticipates if its disclosure of "topical application" satisfies the application step in Dr. Perricone's various asserted claims.

[3] Claim 1 of the '693 patent, from which claims 2-4 and 7 ultimately depend, specifically recites application of the fatty acid ester to "skin sunburn." This claim term raises a different problem. The issue is not, as the dissent and district court imply, whether Pereira's lotion *if applied* to skin sunburn would inherently treat that damage, but whether Pereira discloses the application of its composition to skin sunburn. It does not. This court explained in *Catalina Marketing International, Inc. v. Cool Savings.com, Inc.* that a patent to an apparatus does not necessarily prevent a subsequent inventor from obtaining a patent on a new method of using the apparatus. 289 F.3d 801, 809 [62 USPQ2d 1781] (Fed. Cir. 2002). New uses of old products or processes are indeed patentable subject matter. See 35 U.S.C. § 101 (2000) (identifying as patentable "any new and useful improvements" of a process, machine, manufacture, etc.); *In re King*, 801 F.2d 1324, 1326 [231 USPQ 136] (Fed. Cir. 1986) (principles of inherency do not prohibit a process patent for a new use of an old structure). That principle governs in this case as well.

Claim 1 of the '693 patent recites a new use of the composition disclosed by Pereira, i.e., the treatment of skin sunburn. The district court's inherent anticipation analysis for this claim contains a flaw. The disclosed use of Pereira's lotion, i.e., topical application, does not suggest application of Pereira's lotion to skin sunburn. In other words, the district court's inherency analysis goes astray because it assumes what Pereira neither disclosed nor rendered inherent. Because Pereira does not disclose topical application to skin sunburn, this court reverses the district court's holding that Pereira anticipates claims 1-4 and 7 of the '693 patent.

Like the district court, the dissent seems to ignore, or at least dismiss as "not substantial[]," the distinction between Dr. Perricone's claimed method and Pereira's disclosed method. Thus, the dissent characterizes both methods the same way: "Pereira describes not only the same product that is claimed in the sunburn patent, but also the same method of using it, i.e., topically apply-

ing it to the skin in an amount necessary to have beneficial effects on the skin." Unfortunately, the dissent can make that statement only by dismissing the explicit language of Dr. Perricone's claimed method: "applying to the skin sunburn." '693 patent, claim 1. Skin sunburn is not analogous to skin surfaces generally. Thus, there is an important distinction between topical application to skin for the purpose of avoiding sunburn, and the much narrower topical application to skin sunburn. That distinction highlights the flaw in the dissent's knee brace hypothetical, which suggests that a particular prevention method necessarily anticipates a treatment method. To use a more apt analogy, the disclosure that a sunburn can be prevented by wearing a hat clearly does not anticipate a claim to the discovery that one can treat an existing sunburn by putting on a hat. The dissent attempts to bolster its analogy by comparing the mechanism underlying its knee brace analogy to Dr. Perricone's invention. With that comparison, the dissent drifts even farther from the facts of this case. The alleged anticipating reference here is Pereira, not Dr. Perricone's own teachings. Pereira is silent about any sunburn prevention or treatment benefits, not to mention the mechanisms underlying such uses. If Pereira did teach sunburn prevention, as well as the mechanism behind that prevention, those teachings might suggest that Dr. Perricone's sunburn treatment claims would have been obvious. However, those unrealized possibilities do not alter the analysis in this case where Pereira does not disclose topical application to skin sunburn.

Unlike claim 1, claim 8 of the '693 patent, from which claims 9 and 13 ultimately depend, merely requires application of the composition to exposed skin surfaces. Because all skin surfaces are susceptible to sunburn damage, and because one can only realistically apply a composition to a skin surface when that surface is exposed, Pereira's "topical application" encompasses the application step of claim 8. Thus, the district court correctly determined that Pereira's disclosure of the topical application of the same composition necessarily anticipates claims 8, 9, and 13 of the '693 patent.

[4] Claim 1 of the '063 patent, from which claims 2-8 of that patent ultimately depend, recites application to "affected skin areas." That claim further recites that those skin areas

suffer from "depleted or inhibited collagen synthesis." '063 patent, claim 1. The specification of the '063 patent, meanwhile, explains that such damage results from, *inter alia*, "the natural aging process." '063 patent, col. 1, ll. 46-50. Because all skin is a victim of that process, claim 1 of the '063 patent ultimately claims merely the topical application of the recited composition. Likewise, claim 9 of the '063 patent, from which claims 10-15 of that patent ultimately depend, recites application of the composition to "affected skin areas" where those areas are further identified as being "aged." As such, because all skin ages, the application step of claim 9 merely requires application of the composition to skin. Similarly, the "affected tissue areas" of claim 16 of the '063 patent, from which claims 17-25 ultimately depend, are identified in that claim as "aging skin." Thus, as with claims 1 and 9 of the '063 patent, claim 16 claims merely the topical application of the recited composition. Because Pereira discloses the very same composition and teaches its topical application, the district court correctly applied the inherency doctrine. Using the same composition claimed by Dr. Perricone in the same manner claimed by Dr. Perricone naturally results in the same claimed skin benefits.

In an effort to support the district court's invalidity ruling on other grounds, Medicis has directed this court's attention to a number of other references that Medicis argues anticipates Dr. Perricone's claims. This court declines to consider grounds for invalidity not relied on by, and not appealed from, the district court.

Infringement

Recognizing that invalidity is an affirmative defense to infringement, the district court granted Medicis' motion for summary judgment of non-infringement of the '693 patent. *Perricone*, 267 F.Supp.2d at 248-49. The district court likewise denied Dr. Perricone's motion for summary judgment of infringement. Because it reverses the district court's grant of summary judgment on claims 1-4 and 7 of the '693 patent, this court also vacates the district court's summary judgment of non-infringement on those claims.

Attorney Fees

In the cross-appeal, Medicis challenges the district court's denial of its motion for attor-

ney fees under § 285. Medicis asks this court either to remand on the exceptional case question or to "declare the case exceptional without further proceedings." Medicis' opening brief at 64. This court declines that invitation.

An award of attorney fees under 35 U.S.C. § 285 involves a two-part determination. First, a district court must determine whether the prevailing party has proven an exceptional case by clear and convincing evidence. *Forest Labs., Inc. v. Abbott Labs.*, 339 F.3d 1324, 1327 [67 USPQ2d 1682] (Fed. Cir. 2003) (citing *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 669 [57 USPQ2d 1161] (Fed. Cir. 2000)). This court reviews an exceptional case finding for clear error. *Id.* at 1328. Second, if the district court finds the case exceptional, it must then determine whether an award of attorney fees is appropriate. *Id.* This court reviews that determination for an abuse of discretion. *Id.* (citing *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1460 [46 USPQ2d 1169] (Fed. Cir. 1998) (en banc)). As this court explained in *Frank's Casing Crew v. Weatherford International*, trial judges enjoy discretion to award attorney fees for good reason. 389 F.3d 1370, 1379 [73 USPQ2d 1065] (Fed. Cir. 2004). "After presiding over the preparation and trial of the case, the trial judge can best weigh the relevant considerations, such as the closeness of the case, the tactics of counsel, the flagrant or good faith character of the parties' conduct, and any other factors contributing to imposition of punitive sanctions or to fair allocation of the burdens of litigation." *Id.* (citing *Modine Mfg. Co. v. Allen Group Inc.*, 917 F.2d 538, 543 [16 USPQ2d 1622] (Fed. Cir. 1990); *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201 [228 USPQ 367] (Fed. Cir. 1986)). This case exhibits those considerations.

[5] Medicis' arguments appear to focus on the timing and content of various expert reports proffered by Dr. Perricone, the propriety of various responses by Dr. Perricone to Medicis' requests for admissions, and demands made by Dr. Perricone during settlement negotiations. While the timing and content of some of those documents might be questionable, Medicis points to nothing establishing that the district court committed clear error regarding whether this case is exceptional. Moreover, even if this court determined that this case should have been declared exceptional, the district court's failure

to award attorney fees would not rise to an abuse of discretion given that court's familiarity with the various relevant details of Dr. Perricone's conduct in this case.

CONCLUSION

This court affirms the district court's summary judgment of invalidity of claims 1-19 of the '063 patent and claims 8, 9, and 13 of the '693 patent. However, because the district court erred in its anticipation analysis of claims 1-4 and 7 of the '693 patent, this court reverses the district court's summary judgment of invalidity as to those claims. Moreover, this court vacates the district court's summary judgment of non-infringement of claims 1-4 and 7 of the '693 patent, but affirms that summary judgment as to the remaining claims in that patent. Finally, this court affirms the district court's denials of Medicis' motion for attorney fees under 35 U.S.C. § 285. This court remands for further proceedings.

COSTS

Each party shall bear its own costs.

AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART and REMANDED

Bryson, J., concurring in part and dissenting in part.

I concur in most aspects of the court's opinion, including the portions upholding the district court's ruling that claims 1-19 of the "skin disorder" patent, U.S. Patent No. 5,574,063, and claims 8, 9, and 13 of the "sunburn" patent, U.S. Patent No. 5,409,693, are anticipated by U.S. Patent No. 4,981,845 ("the Pereira patent"). I dissent, however, from the portion of the judgment holding that the Pereira patent does not anticipate claims 1-4 and 7 of the sunburn patent. In my view, the differences between the claims that the court invalidates and those that it holds not to be invalid do not justify a difference in outcome. The written description of the sunburn patent is identical to the pertinent portions of the written description of the skin disorder patent in all material respects. The only significant difference between the two patents for present purposes is that the sunburn patent claims methods for treating and preventing sunburn comprising the topical application of

the composition described in the specification, while the skin disorder patent claims a method for treating skin disorders comprising the topical application of the same composition. Moreover, the only difference between the claims of the sunburn patent that this court invalidates and those that it upholds is that the former recite methods for preventing sunburn while the latter recite methods for treating sunburn. The differences between the sunburn and the skin disorder patents, and among the claims of the sunburn patent, simply highlight inherent features of the compositions that are disclosed both in the common written description of the two patents in suit and in the Pereira patent. Under our precedents, those differences do not suffice to avoid anticipation.

Claim 1 of the sunburn patent recites:

A method for treating skin sunburn comprising topically applying to the skin sunburn a fatty acid ester of ascorbic acid effective to solubilize in the lipid-rich layers of the skin an amount effective to scavenge therefrom free radicals present as a result of transfer of energy to the skin from the ultraviolet radiation which produced said sunburn.

Dependent claims 2-4 and 7 recite a method for treating skin sunburn in which the fatty acid ester of ascorbic acid is topically applied to the skin in the form of a composition including a dermatologically acceptable carrier (claim 2), in which the fatty acid ester of ascorbic acid is selected from a group including ascorbyl palmitate (claim 3), in which the fatty acid ester of ascorbic acid is ascorbyl palmitate (claim 4), and in which the composition includes Vitamin E (claim 7). Independent claim 8 and dependent claims 9 and 13 are similar to claims 1, 2, and 7, except that they recite a method for preventing sunburn damage to exposed skin.

In explaining the effectiveness of the claimed method, the sunburn patent states:

The effectiveness of the ascorbyl fatty acid esters in the treatment of . . . radiation-induced skin damage . . . can be postulated as resulting from the anti-oxidant properties of ascorbic acid per se, which properties are retained to a high degree in the ascorbyl fatty acid ester form, together with the fact that the ascorbyl fatty acid ester form is capable of being delivered in an effective manner.